

Remarks

The Office Action mailed October 21, 2004 and made final has been carefully reviewed and the foregoing amendments have been made in consequence thereof.

Claims 1-25 are pending in this application. Claims 1-24 stand rejected. Claim 25 has been newly added. No new matter has been added.

In accordance with 37 C.F.R. 1.136(a), a one month extension of time is submitted herewith to extend the due date of the response to the Office Action dated October 21, 2004 and made final, for the above-identified patent application from January 21, 2005, through and including February 21, 2005. In accordance with 37 C.F.R. 1.17(a)(3), authorization to charge a deposit account in the amount of \$120.00 to cover this extension of time request also is submitted herewith.

A fee calculation sheet for newly added claim 25 along with authorization to charge a deposit account in the amount of the calculated fee is submitted herewith.

The rejection of Claims 1-24 under 35 U.S.C. § 112, first paragraph, is respectfully traversed.

Applicants respectfully submit that the specification meets the requirements of Section 112, first paragraph. Specifically, Applicants respectfully submit that the specification, including the figures, would enable one skilled in the art to make and/or use the invention as described in the present patent application. Accordingly, Applicants respectfully request that the rejection of Claims 1-24 under Section 112, first paragraph, be withdrawn.

The Office Action asserts at page 6 that "Claim 1 recites the limitation 'sample asset' in lines 9, 11, 12, 13, and 14" and that there "is insufficient antecedent basis for this limitation in the claim 1." Applicants respectfully traverse this assertion. However, in an effort to expedite prosecution of the present patent application, Applicants have amended Claims 1, 2, 4, 8-10, 12, 17, 18 and 20 as suggested by the Examiner. Applicants respectfully submit that the specification, including the figures, would enable one skilled in the art to make and/or use the

invention as described in the present patent application. Accordingly, Applicants respectfully request that the rejection of Claims 1-24 under Section 112, first paragraph, be withdrawn.

For the reasons set forth above, Applicants respectfully request that the rejection of Claims 1-24 under Section 112, first paragraph, be withdrawn.

The rejection of Claims 2-6, 10-14, and 18-22 under 35 U.S.C. § 112, first paragraph, is respectfully traversed.

Applicants respectfully submit that the specification meets the requirements of Section 112, first paragraph. Specifically, Applicants respectfully submit that the specification, including the figures, would enable one skilled in the art to make and/or use the invention as described in the present patent application. Accordingly, Applicants respectfully request that the rejection of Claims 2-6, 10-14, and 18-22 under Section 112, first paragraph, be withdrawn.

The Office Action asserts at page 7 that “claims 2-6, 10-14, and 18-22 contain subject matter, ‘selecting and setting individual attributes to be used for valuing each asset included in the portfolio based on the underwriting of each sample asset’ which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.” Applicants respectfully traverse this assertion.

Applicants respectfully submit that the recitation “selecting and setting individual attributes to be used for valuing each asset included in the portfolio based on the underwriting of each of the sample assets” is fully described in the originally filed specification. For example, the original specification recites at page 26, lines 1-13 as follows:

Supervised learning process 206 of inferred valuation procedure 40 and steps 120, 122 and 126 of partial sampling procedure 108 have substantial similarity in that the underwriter is actively involved in the process, but the process is automated. Figure 6 is a flow diagram illustrating a process 210 for automated underwriting of segmentable financial instrument assets. First clusters of financial instruments are defined 212 by common attributes. An expert opinion 214 of value is given for selected samples from the defined clusters based upon the attributes. This opinion is used in a sample underwriting process 216 and values are checked for combinations of attributes and reconciled 218. Process 210 then selects and sets 220 the individual attributes to be used and then classifies 222 individual assets

into clusters. Cluster valuation is applied 224 to each cluster asset. Using the cluster valuation, the values are segregated by a rule 226 to create a credit analyst table 228.

The originally filed specification therefore provides that “Process 210 then selects and sets 220 the individual attributes to be used and then classifies 222 individual assets into clusters.”

Accordingly, Applicants respectfully submit that the recitation “selecting and setting individual attributes to be used for valuing each asset included in the portfolio based on the underwriting of each of the sample assets” is fully described in the originally filed specification such that the specification, including the figures, would enable one skilled in the art to make and/or use the invention. Accordingly, Applicants respectfully request that the rejection of Claim 2 under Section 112, first paragraph, be withdrawn.

Claims 10 and 18 were rejected for reasons similar to Claim 2. For at least the reasons set forth above, Applicants respectfully submit that Claims 10 and 18 also satisfy the requirements of Section 112, first paragraph.

Claims 3-6, 11-14, and 19-22 were rejected under 35 U.S.C. § 112 solely due to their dependencies. It is submitted that the rejection of Claims 3-6, 11-14, and 19-22 under 35 U.S.C. § 112 no longer applies in view of the remarks made herein with respect to Claims 2, 10, and 18.

For at least the reasons stated above, it is respectfully requested that the rejection of Claims 2-6, 10-14, and 18-22 under 35 U.S.C. § 112 be withdrawn.

The rejection of Claims 1-24 under 35 U.S.C. § 102(e) as being anticipated by Freeman et al. (U.S. Pub. No. 2001/0029477) (“Freeman”) is respectfully traversed.

Applicants respectfully submit that Freeman does not describe or suggest the claimed invention. As discussed below, at least one of the differences between the cited reference and the present invention is that Freeman does not describe or suggest a computer-implemented method for automated underwriting of a portfolio of segmentable, financial instrument assets using a portfolio valuation system, wherein the method includes defining a first set of clusters of assets by common attributes wherein each defined cluster within the first set of clusters includes

assets having common attributes, utilizing the computer to perform analytics that enable a selection of sample assets from each defined cluster within the first set of clusters for valuation purposes, and receiving at the computer a value assigned to each of the sample assets which is based on an expert opinion wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset.

Moreover, Freeman does not describe or suggest performing an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes, analyzing each of the sample assets having a combination of attributes, and reconciling the value assigned to each of the sample assets having a combination of attributes, and generating an adjusted value for each of the sample assets based on the performed underwriting process.

Freeman describes a method for mortgage and closed end loan portfolio management in the form of an analytic tool designed to improve analysis of past and future performance of loan portfolios. The method includes aggregating loan units into loan vintages, wherein the loans in each vintage originate within a predetermined time interval of one another. The method further includes comparing different vintages to one another in a manner such that the ages of the loans in the different vintages are comparable to one another. An early warning component of the system predicts delinquency rates expected for a portfolio of loans during a forward looking time window. A matrix link component of the invention combines the loan vintage analysis with the early warning component of the invention and predicts the default rate of the loan portfolios at a selected future point in time. The results of the analysis are graphically depicted and/or automatically feedback to provide "yes" or "no" decisions regarding investments in various loan portfolios (see abstract).

More specifically, Freeman describes a system wherein for each group of loans of a particular age, the system uses a 3-month transition matrix to forecast three months forward, a 6-month transition matrix to forecast six months forward, a 9-month transition matrix to forecast nine months forward and a 12-month transition matrix to forecast twelve months forward. Based on the data, the system calculates respectively looking forward three, six, nine and twelve months: (1) how many good loans and bad loans will exist from the portfolio; (2) how many

good loans will turn into bad; and (3) how many bad loans will remain bad. From this data, one obtains the classic "roll-rate" forecast which provides the first component of the forecast. The above approach merely projects forward the results that have already occurred in the past, on the expectation that they will repeat themselves. However, a greater benefit of the matrix link technique of the present invention comes from adding the additional information that is contained in and/or obtained by the early warning system (32). (Page 10, paras. 0109-0114).

The system described in Freeman (a) calculates an empirical ratio obtained as – the cumulative number of loans which are 90+ at each quarter (EOP) and divides it by the number of loans that are 90+ at least once during these four quarters; (b) from the EWS (32), the system obtains or forecasts the "bad" rate for the two-year window based on the EWS (32); and (c) using the EWS (32), the system forecasts the bad rate and the empirical ratio above as a new piece of information to adjust the classic "roll-rate" forecast. (Page 10, paras. 0115-0118).

Notably, Freeman does not describe or suggest assigning a value to each of the sample assets which is based on an expert opinion wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset, performing an underwriting process on each of the sample assets, and then generating an adjusted value for each of the sample assets based on the performed underwriting process.

Claim 1 recites a computer-implemented method for automated underwriting of a portfolio of segmentable, financial instrument assets using a portfolio valuation system, the portfolio valuation system includes a computer coupled to a database, the method includes "defining a first set of clusters of assets by common attributes, wherein each defined cluster within the first set of clusters includes assets having common attributes...utilizing the computer to perform analytics that enable a selection of sample assets from each defined cluster within the first set of clusters for valuation purposes...receiving at the computer a value assigned to each of the sample assets which is based on an expert opinion, the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset...performing an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes, analyzing each of the sample assets having a combination of attributes,

and reconciling the value assigned to each of the sample assets having a combination of attributes...and generating an adjusted value for each of the sample assets based on the performed underwriting process.”

Freeman does not describe or suggest a computer-implemented method for automated underwriting of a portfolio of segmentable, financial instrument assets using a portfolio valuation system, wherein the method includes defining a first set of clusters of assets by common attributes wherein each defined cluster within the first set of clusters includes assets having common attributes, utilizing the computer to perform analytics that enable a selection of sample assets from each defined cluster within the first set of clusters for valuation purposes, and receiving at the computer a value assigned to each of the sample assets which is based on an expert opinion wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset.

Moreover, Freeman does not describe or suggest a method that includes performing an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes, analyzing each of the sample assets having a combination of attributes, and reconciling the value assigned to each of the sample assets having a combination of attributes, and generating an adjusted value for each of the sample assets based on the performed underwriting process.

Rather, Freeman describes a process for predicting the performance of a loan portfolio using a logistic regression formula that is applied to each loan unit. Specifically, Freeman describes a method for mortgage and closed end loan portfolio management that includes comparing different vintages to one another in a manner such that the ages of the loans in the different vintages are comparable to one another; using an early warning component for predicting delinquency rates expected for a portfolio of loans during a forward looking time window; and graphically depicting the results to provide "yes" or "no" decisions regarding investments in various loan portfolios.

Although Freeman describes separating loan units into a plurality of loan groups based on a particular locality or a particular time frame, Freeman does not describe or suggest performing analytics on a first set of clusters of assets that enable a selection of sample assets from each defined cluster within the first set of clusters for valuation purposes, and receiving a value assigned to each of the sample assets which is based on an expert opinion wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset. Rather, Freeman describes predicting delinquency rates expected for a portfolio of loans during a forward looking time window. Freeman does not describe or suggest valuing sample assets wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset. Moreover, Freeman does not describe selecting sample assets from a first set of clusters of assets.

In addition, Freeman does not describe or suggest performing an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes, analyzing each of the sample assets having a combination of attributes, and reconciling the value assigned to each of the sample assets having a combination of attributes, and generating an adjusted value for each of the sample assets based on the performed underwriting process.

Freeman describes “a system and a method which is able to dynamically and automatically evolve loan underwriting criteria”. More specifically, Freeman describes a system that includes a dynamic underwriting method and system (30) comprising several key components including an early warning system (32), a Crus Classes analysis section (34) and a matrix link (36). The information obtained from the subsystems (32), (34) and (36) is designed to be applied, via feedback line (38), to the decision box (14) in a manner which systemizes and provides a standardized approach to forming the decisions whether to book loans. The dynamic underwriting system (30) of the present invention can also be applied via feedback line (40) to the decisional box (32) which addresses the decisions at block (32) whether to purchase loan servicing rights of loans owned by other financial institutions. (Pages 3 and 4, para. 0044.) However, Freeman does not describe, teach or even mention performing an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes,

analyzing each of the sample assets having a combination of attributes, and reconciling the value assigned to each of the sample assets having a combination of attributes.

Furthermore, Freeman does not describe or teach generating an adjusted value for each of the sample assets based on the performed underwriting process. Rather, Freeman describes predicting delinquency rates expected for a portfolio of loans during a forward looking time window. Freeman does not describe or suggest valuing sample assets wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset. Accordingly, Applicants respectfully submit that Claim 1 is patentable over Freeman.

Claims 2-8 depend from independent Claim 1. When the recitations of Claims 2-8 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-8 likewise are patentable over Freeman.

Claim 9 recites a portfolio valuation system for automated underwriting of segmentable, financial instrument assets, the system includes a computer configured as a server and further configured with a database of asset portfolios, and at least one client system connected to the server through a network, wherein the server is configured to “define a first set of clusters of assets by common attributes wherein each defined cluster within the first set of clusters includes assets having common attributes...select sample assets from each defined cluster within the first set of clusters for valuation purposes...receive a value assigned to each of the sample assets which is based on an expert opinion, the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset...perform an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes, analyzing each of the sample assets having a combination of attributes, and reconciling the value assigned to each of the sample assets having a combination of attributes...and generate an adjusted value for each of the sample assets based on the performed underwriting process.”

Freeman does not describe or suggest a portfolio valuation system for automated underwriting of segmentable, financial instrument assets that includes a server configured to define a first set of clusters of assets by common attributes wherein each defined cluster within the first set of clusters includes assets having common attributes, select sample assets from each defined cluster within the first set of clusters for valuation purposes, and receive a value assigned to each of the sample assets which is based on an expert opinion wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset.

Moreover, Freeman does not describe or suggest a server configured to perform an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes, analyzing each of the sample assets having a combination of attributes, and reconciling the value assigned to each of the sample assets having a combination of attributes, and generate an adjusted value for each of the sample assets based on the performed underwriting process.

Rather, Freeman describes a process for predicting the performance of a loan portfolio using a logistic regression formula that is applied to each loan unit. Specifically, Freeman describes a method for mortgage and closed end loan portfolio management that includes comparing different vintages to one another in a manner such that the ages of the loans in the different vintages are comparable to one another; using an early warning component for predicting delinquency rates expected for a portfolio of loans during a forward looking time window; and graphically depicting the results to provide "yes" or "no" decisions regarding investments in various loan portfolios.

Although Freeman describes separating loan units into a plurality of loan groups based on a particular locality or a particular time frame, Freeman does not describe or suggest a server configured to select sample assets from each defined cluster within the first set of clusters for valuation purposes, and receive a value assigned to each of the sample assets which is based on an expert opinion wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset. Rather, Freeman describes predicting delinquency rates expected for a portfolio of loans during a forward looking time window.

Freeman does not describe or suggest valuing sample assets wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset. Moreover, Freeman does not describe selecting sample assets from a first set of clusters of assets.

Freeman also describes a system that includes a dynamic underwriting method and system (30) comprising several key components including an early warning system (32), a Crus Classes analysis section (34) and a matrix link (36). The information obtained from the subsystems (32), (34) and (36) is designed to be applied, via feedback line (38), to the decision box (14) in a manner which systemizes and provides a standardized approach to forming the decisions whether to book loans. The dynamic underwriting system (30) of the present invention can also be applied via feedback line (40) to the decisional box (32) which addresses the decisions at block (32) whether to purchase loan servicing rights of loans owned by other financial institutions. (Pages 3 and 4, para. 0044.) However, Freeman does not describe, teach or even mention a server configured to perform an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes, analyzing each of the sample assets having a combination of attributes, and reconciling the value assigned to each of the sample assets having a combination of attributes.

Furthermore, Freeman does not describe or teach generating an adjusted value for each of the sample assets based on the performed underwriting process. Rather, Freeman describes predicting delinquency rates expected for a portfolio of loans during a forward looking time window. Freeman does not describe or suggest valuing sample assets wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset. Accordingly, Applicants respectfully submit that Claim 9 is patentable over Freeman.

Claims 10-16 depend from independent Claim 9. When the recitations of Claims 10-16 are considered in combination with the recitations of Claim 9, Applicants submit that dependent Claims 10-16 likewise are patentable over Freeman.

Claim 17 recites a computer for automated underwriting of segmentable, financial instrument assets, the computer is programmed to “define a first set of clusters of assets by common attributes wherein each defined cluster within the first set of clusters includes assets having common attributes, the assets included within the first set of clusters are included within a portfolio stored within the database...select sample assets from each defined cluster within the first set of clusters for valuation purposes...receive a value assigned to each of the sample assets which is based on an expert opinion, the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset...perform an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes, analyzing each of the sample assets having a combination of attributes, and reconciling the value assigned to each of the sample assets having a combination of attributes...and generate an adjusted value for each of the sample assets based on the performed underwriting process.”

Freeman does not describe or suggest a computer for automated underwriting of segmentable, financial instrument assets that is programmed to define a first set of clusters of assets by common attributes wherein each defined cluster within the first set of clusters includes assets having common attributes wherein the assets included within the first set of clusters are included within a portfolio stored within the database, select sample assets from each defined cluster within the first set of clusters for valuation purposes, and receive a value assigned to each of the sample assets which is based on an expert opinion wherein the value is a monetary amount projected by the expert representing a current purchase price of the corresponding asset.

Moreover, Freeman does not describe or suggest a computer programmed to perform an underwriting process on each of the sample assets using the expert opinion including determining whether each of the sample assets includes a combination of attributes and includes any additional attributes, analyzing each of the sample assets having a combination of attributes, and reconciling the value assigned to each of the sample assets having a combination of attributes, and generate an adjusted value for each of the sample assets based on the performed underwriting process.

Rather, Freeman describes a process for predicting the performance of a loan portfolio using a logistic regression formula that is applied to each loan unit. Specifically, Freeman describes a method for mortgage and closed end loan portfolio management that includes comparing different vintages to one another in a manner such that the ages of the loans in the different vintages are comparable to one another; using an early warning component for predicting delinquency rates expected for a portfolio of loans during a forward looking time window; and graphically depicting the results to provide "yes" or "no" decisions regarding investments in various loan portfolios. Accordingly, Applicants respectfully submit that Claim 17 is patentable over Freeman.

Claims 18-24 depend from independent Claim 17. When the recitations of Claims 18-24 are considered in combination with the recitations of Claim 17, Applicants submit that dependent Claims 18-24 likewise are patentable over Freeman.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1-24 be withdrawn.

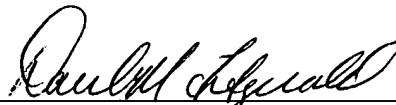
Newly added Claim 25 depends from independent Claim 1. Claim 25 recites a method further including the steps "selecting individual attributes for valuing each asset included within the portfolio after performing the underwriting process on each of the sample assets...classifying each asset included within the portfolio into a second set of clusters based on the selected individual attributes...and valuing each asset included within the portfolio by valuing each asset included in each cluster of the second set of clusters based on the adjusted value assigned to each of the sample assets from the underwriting process."

Applicants respectfully submit that Freeman does not describe or suggest selecting individual attributes for valuing each asset included within the portfolio after performing the underwriting process on each of the sample assets, classifying each asset included within the portfolio into a second set of clusters based on the selected individual attributes, and valuing each asset included within the portfolio by valuing each asset included in each cluster of the second set of clusters based on the adjusted value assigned to each of the sample assets from the underwriting process. Rather, Freeman describes a process for predicting the performance of a

loan portfolio using a logistic regression formula that is applied to each loan unit. Freeman does not describe or suggest valuing each asset included within a portfolio by valuing each asset included in each cluster of a second set of clusters based on an adjusted value assigned to each of the sample assets from an underwriting process. Accordingly, Applicants respectfully submit that newly added Claim 25 is patentable over Freeman.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

A handwritten signature in cursive script, appearing to read "Daniel M. Fitzgerald", is written over a horizontal line.

Daniel M. Fitzgerald
Registration No. 38,880
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070